

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46320
	:	
Robert HARRIS	:	Confirmation Number: 6488
	:	
Application No.: 10/531,246	:	Group Art Unit: 3689
	:	
Filed: April 14, 2005	:	Examiner: G. Araque Jr.
	:	
For: METHOD AND SYSTEM FOR RANKING SERVICES IN A WEB SERVICES ARCHITECTURE		

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief is submitted under 37 C.F.R. § 41.41 in response to the EXAMINER'S ANSWER dated April 28, 2010.

The Examiner's response to Appellant's arguments submitted in the Appeal Brief of February 14, 2010, raises additional issues and underscores the factual and legal shortcomings in the Examiner's rejection. In response, Appellant relies upon the arguments presented in the Appeal Brief of February 14, 2010, and the arguments set forth below.

1 REMARKS

2

3 Appellant has compared the statement of the rejection found on pages 6-16 of the

4 Examiner's Answer with the statement of the rejection found on pages 4-14 of the Second Office

5 Action. Upon making this comparison, Appellant has been unable to discover any substantial

6 differences between the respective statements of the rejection. As such, Appellant proceeds on

7 the basis that the Examiner's sole response to Appellant's Appeal Brief is found on pages 16-30

8 of the Examiner's Answer in the section entitled "Response to Argument."

9

10 Rejection of claim 1 under the First Paragraph of 35 U.S.C. § 112

11 The Examiner's response to the arguments presented on page 5, line 15 through page 6,

12 line 21 of the Appeal Brief is found on pages 16 and 17 of the Examiner's Answer and is

13 reproduced below:

14 The rejection regarding the concept of "computer hardware" being new matter is

15 **maintained.** Specifically, the Examiner asserts that the specification is silent on a computer

16 performing the claimed invention. At best, the specification has support to a ranking machine, but

17 the Examiner asserts that this is not a clear distinction as to whether it is a software program for

18 ranking or a computer that has been specifically programmed to carryout the claimed invention.

19 Although, the term "machine" is present the Examiner asserts that it does not necessarily mean

20 that it is an actual tangible computer structure. For example, a "state machine" is not a machine,

21 but the concept of evaluating nodes and determining possible solutions, i.e. states, from that node,

22 such as left or right or on and off.

23 The appellant argues that the term "architecture" renders the invention to include a

24 computer. However, the Examiner asserts that the specification does not provide any support for

25 this interpretation. As discussed by the appellant, "Fig. 4B is described as 'a schematic block

26 diagram of a web services architecture...,'" and "the term architecture refers to 'the manner in

27 which components of a computer or computer system are organized and integrated.'" In other

28 words, the Examiner asserts that the usage of the term "architecture" is nothing more or equivalent

29 to a schematic or diagrams that maps out how the method is being performed. That is to say, the

30 claimed invention is directed towards a method for ranking services by referring to a directory or

31 schematic of all pertinent web services, wherein the schematic provides a hierarchy of

32 these web services. The claimed invention is directed towards the concept of ranking services or

33 information in a specific environment, but does not necessarily mean that a computer is being

34 provided for executing the code for performing the method. (emphasis in original)

35

1 The Examiner's assertion that "the specification is silent on a computer performing the
2 claimed invention" reflects a fundamental failure of the Examiner to appreciate either the
3 technology or the claimed invention. The terminology found through the Background of the
4 Invention refers to computer-implemented concepts (e.g., "Web services," "program-to-program
5 communications model," "HTTP (hypertext transfer protocol), Extensible Markup Language
6 (XML), Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL)
7 and Universal Description, Discovery and Integration (UDDI)," "functions that are network-
8 accessible," "message formats, transport protocols," "independently of the hardware or software
9 platform on which it is implemented," "independently of the programming language in which it
10 is written," "hardware and software environment of the caller," "loosely coupled, component-
11 oriented, cross-technology implementations that can be published, located, and invoked across a
12 network," etc.). The claims, as originally presented, also refers to terms associated with
13 computer-implemented concepts (e.g., "web services architecture having a hierarchy of
14 services," "the lower-level services are service requestors or service providers," "a service of a
15 first level calls a service of a lower level," "a directory (411) for finding services in the
16 hierarchy," "a service of a first level finds a service of a lower level by means of a UDDI
17 directory (411)," "the ranker machine (405) has a port (412) on the UDDI directory (411),"
18 "underlying UDDI application code carries out the referral and appends the location of the ranker
19 machine (405) to subsequent XML flow." As such, Appellant's position is that one having
20 ordinary skill in the art would have recognized that a computer (i.e., a type of machine) is used to
21 perform the steps of the claimed invention.

1 The Examiner asserts that this "does not necessarily mean that a computer is being
2 provided for executing the code for performing the method." Although Appellant can point to
3 several aspects within the specification that describe the use of a computer, Appellant need only
4 point to original claim 15 which recites "the ranking machine (405) is connected to the directory
5 (411) by a port (412)." As is known by those skilled in the art, a "port" is either a virtual/logic
6 data connection used by a program to exchange data (i.e., a computer software port) or an
7 interface between a computer and other computers or peripheral devices (i.e., a computer
8 hardware port). Moreover, as would be recognized by those skilled in the art, a discussion of
9 software in the real world (i.e., both those skilled in the art) refers to the combination of software
10 being executed by hardware. Thus, the specification, as originally-filed, provides support to the
11 notion that the claimed invention employs computer hardware.

12
13 However, to drive home the point, Appellant also refers to page 11, lines 9-10, which
14 states "[s]oftware in the directory 411 does the referring to the ranker machine 405." Similarly,
15 method claim 22 recites "referring the set of possible lower-level services to the ranking machine
16 from the directory." As clearly described in the specification, software in the directory does the
17 referring. Moreover, as would be recognized by one skilled in the art, software per se (i.e.,
18 software absent anything else) is incapable of performing any function. Thus, since Appellant's
19 specification refers to software performing a particular function, the specification necessarily
20 describes that software, coupled to hardware, is performing a particular function. Appellant,
21 therefore, maintains that concept of "computer hardware" is not new matter, as alleged by the
22 Examiner.

Rejection of claim 13 under the First Paragraph of 35 U.S.C. § 112

The Examiner's response to the arguments presented on page 6, line 23 through page 7, line 5 of the Appeal Brief is found on page 17 of the Examiner's Answer and is reproduced below:

The rejection regarding the concept of a "database storing a hierarchy of services in which a service of a first level calls a service of a lower level" being new matter is **maintained**.

As discussed above, the appellant is attempting to claim a computer by including the concept of a database. However, as discussed above, the specification provides no support for a computer system and although the specification discloses a hierarchy of information, i.e. services, it does not necessarily mean that a computer or a database is being used. It is asserted that in the broadest reasonable interpretation that a piece of paper or filing system that has been broken down into categories or sub-categories reads over the storage of a hierarchy of information (services). (emphasis in original)

The Examiner reliance upon "the broadest reasonable interpretation" is misplaced. The broadest reasonable interpretation regards how an Examiner is to construe the language of the claim vis-à-vis the prior art – not how one skilled in the art would interpret Appellant's specification.

Again, Appellant points to original claim 15 which recites "the ranking machine (405) is connected to the directory (411) by a port (412)." Thus, it is clear to one skilled in the art that the directory is some type of computer structure. Given that a directory is a collection of information and that a database is commonly known in the art as a computer structure that is a collection of information, Appellant's position is that concept of a "database" is not new matter, as alleged by the Examiner.

Rejection of the claims under the Second Paragraph of 35 U.S.C. § 112

The Examiner's initial response to the arguments presented in the Appeal Brief is found in the first full paragraph on page 18 of the Examiner's Answer and is reproduced below:

The Examiner **maintains** the rejection that the **step of ranking the services** must be included in the claims in order to determine the scope of the invention and allow one of ordinary

1 skill in the art to determine whether or not they are infringing on the claimed invention. It is
2 asserted that the claims must be clear and leave out any ambiguity on performing the claimed
3 invention and relying on the knowledge of the reader is inappropriate. It is asserted that the body
4 of the claim fails to satisfy the preamble in that the preamble discloses a method of ranking
5 services, but fails to set forth the step of performing the ranking or when to perform the ranking.
6

7 The Examiner has not alleged that the claim language is indefinite. Instead, the Examiner has
8 alleged that claim 1 omits certain limitations. However, the omission of certain limitations does
9 not necessarily render a claim indefinite. Claim 1 does not include any of the limitations recited
10 in claims 21-31, yet the Examiner has not alleged that claim 1 is indefinite because of these
11 omissions. The Examiner appears hung up on the language of the claims not explicitly reciting
12 "performing the ranking." However, claim 1 clearly recites "applying the choice algorithm to the
13 set of possible lower-level services." Although apparently not recognized by the Examiner, the
14 specification clearly describes that the application of the choice algorithm performs ranking. A
15 claim is not 'indefinite' simply because it is hard to understand when viewed without benefit of
16 the specification." S3 Inc. v. nVIDIA Corp., 59 USPQ2d 1745 (Fed. Cir. 2001).
17

18 The Examiner's response, found in the paragraph spanning pages 18 and 19, to
19 Appellant's hypothetical reflects the Examiner's failure to properly understand the differences
20 between the first and second paragraphs of 35 U.S.C. § 112. The second paragraph of 35 U.S.C.
21 § 112 only requires that the claims particularly point out and distinctly claim the subject matter
22 being claimed. Specifically, the second paragraph of 35 U.S.C. § 112 does not require that the
23 claims enable the claimed invention (see Examiner's requirement on page 18 that "it is
24 imperative to include every step in order to avoid any errors"). Instead, the enablement of the
25 claimed invention is associated with the specification and the first paragraph of 35 U.S.C. § 112.
26 By way of example, the undersigned has prosecuted several hundred patent applications
27 involving computer-based methods. However, the undersigned does not recall a single instance

1 in which an Examiner has required the method include the step of "turning on the computer."
2 Without the computer being turned on, none of the claimed method steps can be performed.
3 However, the inclusion of this step has not been required despite it is seemingly apparent
4 necessity.

5
6 Referring to the first full paragraph on page 19 of the Examiner's Answer, "the Examiner
7 maintains the rejections for the same rationale provided above." As such, Appellant incorporates
8 herein the same response presented above. The Examiner also asserts that the Examiner's
9 question is not with regard to enablement under the first paragraph of 35 U.S.C. § 112, but
10 instead, to the claims being vague and indefinite. However, the Examiner subsequent analysis
11 again refers to enablement (i.e., the specifics as to how certain steps are performed). The
12 Examiner apparently does not recognize that where Appellant's claims are silent as to how a
13 particular step is performed, it means that Appellant has currently determined that the specifics
14 as to how the particular step is performed is not necessarily to distinguish the claimed invention
15 over the prior art. The fact that certain claimed steps could be performed in different manners
16 reflects the breadth of the claimed invention. However, breadth should not be confused with
17 indefiniteness. In re Miller, 441 F.2d 689, 693, 169 USPQ 597, 600 (CCPA 1971); M.P.E.P. §
18 2173.04.

19
20 Referring to the last full paragraph on page 19 of the Examiner's Answer, the Examiner
21 further asserted the following:

22 Finally, the Examiner asserts that if it not necessary to have any of these essential steps
23 then the Examiner asserts that by this logic the prior art does on [sic?] require any disclosure of
24 these steps either and if one of ordinary skill in the art can simply assume what steps go where
25 then one of ordinary skill in the art can do the same with the prior art.
26

1 Although not clear, the Examiner appears to be asserting that if certain steps are not claimed or
2 not claimed as being performed in a particular manner, then the prior art is not required to
3 disclose the steps or the particular unclaimed manner in which these steps are performed. If so,
4 then the Examiner has correctly noted that limitations, not claimed, do not have to be shown by
5 the applied prior art.

6
7 The Examiner's analysis in the first full paragraph on page 20 of the Examiner's Answer
8 reflects a failure, by the Examiner, to read the claims in conjunction with the specification. For
9 example, the Examiner's assertion that "what this choice algorithm is completely unknown and
10 uncertain as to whether it is being used for ranking" clearly ignores Appellant's specification
11 which states:

12 A ranker machine 405 is provided which stores details of the service requestor's 401
13 preferences for service selection. This is provided in the form of a choice algorithm between
14 options presented at any relevant time to the ranker machine 405. The service requestor 401
15 informs the ranker machine 405 of its preferences for any service provider and a choice algorithm
16 is saved that ranks preferences for service providers.

17 In a first embodiment, the ranker machine 405 listens on a port 412 on the directory 411.
18 When the directory 411 carries out a look up and produces a bag of results, the ranker machine
19 405 is listening on the port 412 and the bag of results is sent 407 to the ranker machine 405. The
20 ranker machine 405 applies its choice algorithm to the bag of results and returns 409 a sequence of
21 results in the preferred order of the service requestor 401 to the directory 411. The directory 411
22 answers the look up with the sequence of results provided by the ranker machine 405. (emphasis
23 added)
24

25 Again, Appellant's position as stated in the beginning of this Reply Brief is that the
26 Examiner fails to appreciate either the technology or the claimed invention. Instead, the
27 Examiner has viewed the language of the claims (without the benefit of the specification) as one
28 not skilled in the art. As a result, the Examiner's claim constructions and analysis does not
29 reflect proper claims constructions given to the claimed limitations at issue.

Rejection of the claim 1 under 35 U.S.C. § 101

The Examiner's response to the arguments presented on page 10, line 20 through page 13, line 10, of the Appeal Brief is found on page 20 of the Examiner's Answer and is reproduced below:

As discussed above, the Examiner asserts that the claims fail to specifically disclose the steps of the claimed invention that are specifically being performed by a machine, i.e. a computer. As discussed above, a ranking machine does not necessarily limit the limitation to being performed by a computer. The claims fail to set forth limitations that specifically state or disclose that a computer has been provided to execute specific steps of the claimed invention. Applying the choice algorithm, in the broadest reasonable interpretation, can be understood as a user looking at a set of instructions and applying a series to steps to the set of possible lower-level services. Additionally, the Examiner asserts that "invoking services" is insufficient to disclose whether a computer is invoking those services.

Contrary to the Examiner's position, there is no requirement that limitations "specifically state or disclose that a computer has been provided to execute specific steps." Instead, In re Bilski only requires that the claims be tied to a particular machine or apparatus.

Notably, the Examiner has failed to identify or even allege that claim 1 attempts to claim either a fundamental principle or a mental process. Without doing so, the Examiner cannot ask whether or not the machine or transformation test has been met. This failure by the Examiner notwithstanding, the invoking of a service requires that a service (i.e., a specific type of software system) be invoked (i.e., implemented). Since the implementation of a software system requires the use of computer hardware, the claimed invention has been tied to a specific machine (i.e., a computer).

Rejection under 35 U.S.C. § 103 – non-analogous prior art

The Examiner's response to the arguments presented on page 15, line 5 through page 16, line 2, of the Appeal Brief is found on pages 20-23 of the Examiner's Answer. Of note, the Examiner asserts the following on page 21 of the Examiner's Answer:

Specifically, the Examiner has stated in the rejection that the type of data that is being analyzed is nothing more than non-functional descriptive subject matter. It is asserted that the claimed invention is nothing more than a program that allows a user to rank, i.e. reorganize, data. What that data is supposed to be is completely irrelevant to how the invention is carried out. One of ordinary skill in the art would have recognized that the claimed invention would perform the same regardless of what data is being analyzed.

The Examiner's assertion that "the type of data that is being analyzed is nothing more than non-functional descriptive subject matter" again reflects a gross failure to appreciate the general technology involved in the claimed invention. Appellant respectfully submits that had this application been classified in Patent Technology Center 2100 (i.e., computer architecture), which is more familiar with computer-related patent applications, such an assertion would not have been made. The services being referred to in the claims are web services, which have already been discussed on pages 11 and 12 of the Appeal Brief. As discussed therein, services are software systems (i.e., functional components).

The Examiner asserts that "the claimed invention is nothing more than a program that allows a user to rank, i.e. reorganize, data. What that data is supposed to be is completely irrelevant to how the invention is carried out." The Examiner's logic defines common sense, if the data is completely irrelevant to how the invention is carried out, then how could the choice algorithm be applied against the set of possible lower-level services? Claim 13 recites that "the ranking machine applies the choice algorithm to provide a sequence of preferred services." If the data is completely irrelevant to how the invention is carried out, then the choice algorithm could

1 not provide a sequence of preferred services since the data (e.g., the set of possible services) is
2 irrelevant.

3
4 The Examiner's reliance upon In re Gulack in the last full paragraph on page 21 of the
5 Examiner's Answer is misplaced. In re Gulack¹ involved issues regarding printed matter.
6 However, the claimed invention does not involve printed matter. Instead, the claimed invention
7 involves a computer and services (i.e., particular types of software systems – functional
8 components). Although not apparently recognized by the Examiner, the Examiner's citation of
9 In re Gulack is still important in establishing that the Examiner cannot ignore claim limitations.
10 "The Patent and Trademark Office (PTO) must consider all claim limitations when determining
11 patentability of an invention over the prior art." In re Lowry, 32 F.3d 1579, 1582 (Fed. Cir. 1994)
12 (citing In re Gulack, 703 F.2d 1381, 1385 (Fed. Cir. 1983)).

13
14 The Examiner's asserts on the top of page 22 that "the claimed invention is nothing more
15 than the ranking of information" clearly reflects (i) the Examiner's failure to appreciate the
16 claimed invention and (ii) the Examiner's failure to consider all of the claim limitations.

17
18 The Examiner's re-characterization of the field of endeavor of Mendelevitch and the
19 claimed invention as "the ranking of information" makes a mockery out of mockery out of non-
20 analogous prior art jurisprudence. One can rank chickens, baseball players, lasagna recipes, web
21 services, basketball teams, and a host of a variety different subjects on different information.
22 However, the means by which these items are ranked (and the information used for the ranking)
23 are entirely different. Appellant's position is that the Examiner's alleged field of endeavor does

¹ 703 F.2d 1381, 217 USPQ 401 (Fed. Cir. 1983).

1 not reflect an art-recognized field of endeavor. Instead, the Examiner's alleged field of endeavor
2 is a hindsight-based Examiner-creation based upon how the Examiner can allege the claimed
3 invention and Mendelevitch are within the same field of endeavor and not based upon some
4 recognized field of endeavor.

5
6 In the Appeal Brief, Appellant referred to the case of Wang Laboratories, Inc. v. Toshiba
7 Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993). If different types of memory modules
8 have been held to be within different fields of invention, then different types of ranking (which
9 involve a technology scope far more expansive than different types of memory modules) are also
10 within different fields of invention. Appellant, therefore, respectfully submit that the Examiner's
11 "field of invention" assertion is misplaced, and thus, the Examiner has still failed to establish that
12 Mendelevitch is analogous prior art.

13
14 The Examiner's remaining assertions on pages 22 and 23 of the Examiner's Answer are
15 factually-unsupported and contrary to Appellant's disclosure. To repeat Appellant's prior
16 question, if the information associated with web services "add little, if anything, to the claimed
17 acts or steps," then the Examiner is essentially asserting that the claimed invention does not work
18 as claimed. The Examiner has provided no evidence to support these allegations. Appellant's
19 respectfully submit that the Examiner's failure to appreciate/understand the claimed invention
20 and the associated technology should not be a basis for the Examiner to ignore most of the
21 claimed limitations.

Rejection under 35 U.S.C. § 103 – Mendelevitch fails to teach most limitations

The Examiner's response to the arguments presented on page 16, line 4 through page 19, line 9 of the Appeal Brief is found on pages 23-25 of the Examiner's Answer. Of note, the Examiner asserts the following on page 23 of the Examiner's Answer:

However, KSR forecloses appellant's argument that a specific teaching is required for a finding of obviousness. KSR, 127 S.Ct. at 1741, 82 USPQ2d at 1396. The above claims recite combinations which only unite old elements with no change in their respective functions and which yield predictable results. Thus, the claimed subject matter likely would have been obvious under KSR.

Not only does the Examiner not appreciate the claimed invention and the general technology, the Examiner does not appreciate the law.

The Examiner's conclusory statement is unaccompanied by factual support. The Examiner has failed to establish that all of the claimed limitations are "old elements" with "no change in their respective functions." Moreover, the Examiner has not identified what the "predictable results" of such a combination would be. In fact, by relying upon Mendelevitch alone in rejecting the claimed invention under 35 U.S.C. § 103, the Examiner implicitly admits that certain limitations have not been taught by Mendelevitch. Otherwise, the Examiner would have rejected the claimed invention under 35 U.S.C. § 102. Since the Examiner implicitly admits that the applied prior art fails to teach all of the claimed limitations, the Examiner cannot assert, based upon Mendelevitch alone, that the claims only unite old elements since certain elements must necessarily be missing from the teachings of Mendelevitch. Moreover, the Examiner cannot alleged that there is no change in their respective functions when the Examiner has failed to produce additional prior art that establishes what these respective functions might be and whether or not these respective functions might change or not change when combined with Mendelevitch. Finally, the Examiner cannot alleged that the proposed combination would yield

1 predictable results since the Examiner does not even have a proposed combination to present (a
2 combination requires elements from at least two separate teachings – one cannot combine a
3 single teaching).

4
5 Referring to the paragraph spanning paragraph spanning pages 23 and 24 of the
6 Examiner's Answer, the Examiner asserts

7 In addition, neither appellant's Specification nor appellant's arguments present any
8 evidence that modifying **Mendelevitch** with the rationale provided by the Examiner was uniquely
9 challenging or difficult for one of ordinary skill in the art. Under those circumstances, the
10 Examiner did not err in holding that it would have been obvious to one having ordinary skill in the
11 art at the time of the invention was made to modify **Mendelevitch** to substitute the information
12 that is being ranked from documents to services, especially when the services are not actually
13 being used, i.e. the claimed invention is not implementing the services that are provided by web
14 services.
15

16 There is no requirement that "appellant's Specification [or] appellant's arguments present any
17 evidence that modifying Mendelevitch with the rationale provided by the Examiner was uniquely
18 challenging or difficult for one of ordinary skill in the art." On the contrary, the Supreme Court
19 has stated that "rejections on obviousness grounds cannot be sustained by merely conclusory
20 statements; instead there must be some articulated reasoning with some rational underpinning to
21 support the legal conclusion of obviousness." KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727,
22 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). The Examiner, however,
23 has not provided this articulated reasoning with some rational underpinning to support the
24 Examiner conclusion of obviousness. As noted above, the Examiner has simply ignored most of
25 the claimed limitations and asserted that "the claimed invention is nothing more than the ranking
26 of information." If all Appellant claimed was the ranking of information, then Appellant agrees
27 that such a claim would have been obvious (if not anticipated). However, contrary to the
28 Examiner's allegations, the claimed invention is directed to far more than just the ranking of
29 information.

Referring to the first full paragraph on page 24 of the Examiner's Answer, the Examiner's allegation that "[b]ecause this is a case where the improvements are no more than the predictable use of prior art elements according to their established functions, no further analysis is required by the Examiner" is a perfect example of the Examiner failing to base the Examiner's conclusion of obviousness based upon some articulated reasoning with some rational underpinning. The Examiner's assertion that "the improvements are not more than the predictable use of prior art elements according to the their established functions" is a conclusory statement that lacks factual support.

Rejection under 35 U.S.C. § 103 – Mischaracterization of Mendelevitch

The Examiner's response to the arguments presented on page 16, lines 14-19 of the Appeal Brief is found on pages 24 and 25 of the Examiner's Answer and is reproduced below:

Specifically, the Examiner points out that **Mendelevitch** discloses that a, "communication module configured to receive a plurality of documents from one or more sources.. a ranking module configured to, for each document-topic associated, automatically determine a confidence score and computer the confidence score to a user configurable threshold (Page 2 ¶ 14)."

As can be seen here, **Mendelevitch** does, indeed, disclose that a preference (threshold) is being indicated and that it is in regards to a selected piece of information (see discussion above regarding non-functional descriptive subject matter and that documents and services can be used interchangeably without changing the steps of the invention). In other words, **Mendelevitch** discloses that the threshold is, indeed, related to the document since it is being used by the ranking module in order to determine whether the document falls within the user's preference (threshold). That is to say, the ranking module uses the threshold (preference) indicated by the user as a means of ranking the documents. (emphasis in original)

The Examiner asserts that the threshold of Mendelevitch corresponds to the claimed preference. The threshold described by Mendelevitch is compared with a confidence score (of a document), and based upon this comparison, if the confidence score is higher than the threshold, the document is placed in a topic's Published list (see paragraph [0012] of Mendelevitch). The threshold (which is compared to the confidence score) does not describe a preference for a

1 particular service or services (or document/documents). Instead, when one selects a threshold
2 score, one cannot know whether a particular document will be placed in a topic's Published list
3 since this threshold score is compared to a confidence score which is generated by a
4 categorization engine. As such, the selection of a threshold does not teach or suggest that a
5 particular service (or document) is preferred since the threshold is selected without necessarily
6 knowing what the confidence score of particular service (or document) might be. Therefore,
7 Mendelevitch fails to teach the claimed connection between the *preference* being indicated and
8 the at least one *service* (or document). Thus, even if the threshold of Mendelevitch could be
9 considered a preference, this preference is not directed to a specific at least one service (or
10 document). Instead, the threshold is directed to the achievement of a particular confidence score
11 that may or may not be met by any document.

12
13 The Examiner's response to the arguments presented on page 16, line 21 through page 17,
14 line 5 of the Appeal Brief is found on page 25 of the Examiner's Answer and is reproduced
15 below:

16 Once again, the Examiner asserts that the information is directed towards non-functional
17 descriptive subject matter for the reasons stated above. **Mendelevitch** clearly discloses finding
18 information using a directory at each level of the hierarchy. In other words, **Mendelevitch**
19 discloses that the information is organized into a multi-level hierarchy directory and that the
20 information can be found using this directory.
21

22 Contrary to the Examiner's analysis, a lower-level service is not "non-functional
23 descriptive subject matter," as alleged by the Examiner. As discussed in the paragraph spanning
24 paragraphs 10 and 11 of Appellant's disclosure, "a service requestor 401 wishes to use the
25 service of an intermediate service provider of the first level 402 which involves using a lower
26 level service." Referring to the third paragraph on page 1 of Appellant's disclosure:

1 A web service is described through an interface that describes a collection of functions
2 that are network-accessible through standardized XML messaging. A web service is described
3 using a standard, formal XML notation, called a service description. The service description
4 covers all the details necessary to interact with the service, including message formats, transport
5 protocols and location. The interface hides the implementation details of the service allowing it to
6 be used independently of the hardware or software platform on which it is implemented and also
7 independently of the programming language in which it is written. It is also independent of the
8 hardware and software environment of the caller. This allows web services-based applications to
9 be loosely coupled, component-oriented, cross-technology implementations that can be published,
10 located, and invoked across a network.

11
12 As indicated therein, a web service is a functional software component (see also pages 11 and 12
13 of the Appeal Brief). For the Examiner to allege that a lower-level service is non-functional
14 descriptive material is a veiled attempt by the Examiner to improperly ignore limitations that the
15 Examiner has not found in the applied prior art.

16
17

18 On pages 25-28 of the Examiner's Answer, the Examiner presents an extensive response
19 to the arguments presented on page 17, line 7 through page 19, line 9 of the Appeal Brief. This
20 response is mostly non-responsive to the specific arguments presented on page 17, line 7 through
21 page 19, line 9 of the Appeal Brief. However, the Examiner's "substitution" found on page 26
22 illustrates some basic errors in the Examiner's analysis. Specifically, the Examiner believes that
23 the "documents" of Mendelevitch can be substituted for the "services" found in claim 1.
24 However, the Examiner neglects to consider that documents cannot be invoked.² Moreover, the
25 Examiner has failed to identify the claimed "set of possible lower-level documents." Also,
26 although a service (being a functional component) can be used to finding a set of lower-level
27 service, the documents of Mendelevitch are not indicated as being so capable. Instead, the
28 documents of Mendelevitch are differentiated, not based upon their functionality, but based upon
29 the content contained therein.

² Although documents can be used, this is not the same as invoking, which means 'to put into effect or operation.'

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On page 27, the Examiner asserts that "the simply [sic] substitution of the concept disclosed by **Mendelevitch** for services has not affected any of the steps that the method is disclosing." Like most of the Examiner's analysis, the Examiner's assertion is a conclusory statement that lacks factual support. On the contrary, the immediately-above paragraph, Appellant have indicated how the process of claimed invention would be affected by the Examiner's "[simple] substitution."

The Examiner further asserts that "the ranking of documents has not affected the idea that the information is in a hierarchy since the documents are in categories (hierarchy)." The Examiner's comparison between categories and a hierarchy is misplaced. In a hierarchy, certain items are positioned higher or lower than others. However, this is not necessarily (i.e., inherently) present with categories. For example, the categories of business, sports, and entertainment does not necessarily describe a hierarchy.

The Examiner's discussion on page 28 regarding Appellant's hypothetical on pages 18 and 19 of the Appeal Brief fails to address the issue of "how it would be possible, while employing the data about chickens (or the documents of Mendelevitch) to "[find] a set of possible lower-level services." Appellant respectfully submits that the Examiner's allegation that "searching through a weight category for a specific type of chicken since they have been categorized" corresponds to the claimed "finding a set of possible lower-level services using a directory at least level of the hierarchy" is nonsense. How would a search through a weight category result in the finding of a specific type of chicken? A weight-category refers to weight,

1 not a type of chicken. Moreover, Appellant is entirely unclear how this allegation has anything
2 to do with "finding a set of possible lower-level services"

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5 The Examiner's further arguments on pages 28-30 of the Examiner's Answer do not
6 address any substantive issues not already addressed in the Reply Brief.

For the reasons set forth in the Appeal Brief of February 14, 2010, and for those set forth herein, Appellant respectfully solicits the Honorable Board to reverse the Examiner's rejections.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: June 28, 2010

Respectfully submitted,

/Scott D. Paul/

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